

District 05 Mobility Performance Report

2017 Second Quarter

DEPARTMENT OF TRANSPORTATION

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: Sam Toh

2017 Second Quarter

EXECUTIVE SUMMARY

Overview

Caltrans District 5 contains five counties located in central coast California: Santa Barbara, San Luis Obispo, Monterey, Santa Cruz and San Benito Counties. There is no detection in San Benito County currently. All of the counties are in an urban setting within the cities limit and rural outside city limit. Santa Cruz and Santa Barbara are the top two most congested counties in the 2nd quarter.

The Mobility Performance quarterly analysis compares information with over a year ago and over last quarter in the following performance measures:

- Vehicle Miles of Travel (VMT))
- Vehicle Hours of Delay (VHD), Bottleneck Locations
- Lost Lane Miles (equivalent lost productivity)
- Detector Health

This information is based on data collected every day of the quarter, twenty-four hours a day, by automated vehicle detector stations deployed on urban-area freeways where congestion is regularly experienced. The MPR presents congestion information at two speed thresholds: delay from vehicles traveling below 35 miles per hour (mph), and delay from vehicles traveling below 60 mph. The delay at the 35 mph threshold represents severe congestion while delay at 60 mph represents all congestion, both light and heavy. These thresholds are set by Caltrans and are based upon engineering experience and District input.

FINDINGS

In the second quarter, total delay equaled 472,400 thousands vehicle hours of delay (VHD) at the 35 mph speed threshold, and 974,100 thousand VHD at the 60 mph threshold. The average weekday delay experienced in this quarter was approximately 5,300 thousand VHD at 35 mph, and 11,000 thousand VHD at 60 mph.

Top Ten Bottlenecks for Quarter 2

County	Fwy	Location	Shift	Abs PM	CA PM	# Days Active	Avg Extent (Miles)	Total Delay (veh-hrs)	Total Duration (mins)
SCR	SR1-S	STATE PARK DR AT HWY 1 SB VDS ML	PM	362.07	10.772	58	3.89138	27569.1	7175
SCR	SR1-S	SOQUEL DR NEXT EXIT SIGN HWY 1 N	PM	365.708	14.41	64	1.54531	17081.6	10955
SCR	SR1-N	41ST ST EXIT AT HWY 1 SB VDS MLN	AM	365.27	13.929	56	4.52857	16781.7	5360
MON	SR1-N	CASA VERDE WAY HWY 1 SB VDS MLNB	PM	329.082	78.547	62	1.97903	15331.6	7155
SCR	SR1-S	PARK AVE AT HWY 1 NB VDS MLSB SB	PM	363.178	11.88	63	2.30476	11174.3	5330
SLO	US101-S	SPYGLASS DR 101 SB VDS MLSB SB	PM	193.322	19.797	49	2.3102	10140.8	5820
SB	US101-S	SANTA CLAUS LANE 101 SB VDS MLSB	PM	87.528	4.632	64	1.7	8686.9	8885
SB	US101-N	EVANS AVE 101 NB VDS MLNB NB	AM	90.984	8.061	43	4.94186	6612.6	3020
SB	US101-S	HERMOSILLO RD 101 NB VDS MLSB SB	PM	93.968	11.08	30	1.89333	6591.1	4050
SCR	SR1-S	NB1 to NB 17 conn	PM	368.018	16.72	29	8.9	6433.3	2085

Quarterly Mobility Statistics

Measure	Graph	Percentage Change									
Vehicle Miles of Travel (VMT)	<p>Miles (Millions)</p> <table border="1"> <tr><th>Year/Quarter</th><th>Value</th></tr> <tr><td>2016 Q2</td><td>640.7</td></tr> <tr><td>2017 Q1</td><td>716.3</td></tr> <tr><td>2017 Q2</td><td>854.4</td></tr> </table>	Year/Quarter	Value	2016 Q2	640.7	2017 Q1	716.3	2017 Q2	854.4	Over one year ago	Over last quarter
		Year/Quarter	Value								
2016 Q2	640.7										
2017 Q1	716.3										
2017 Q2	854.4										
		33.4%	19.3%								
Total Vehicle Hours of Delay (VHD) at 35 mph	<p>Hours (Thousands)</p> <table border="1"> <tr><th>Year/Quarter</th><th>Value</th></tr> <tr><td>2016 Q2</td><td>438.5</td></tr> <tr><td>2017 Q1</td><td>261.9</td></tr> <tr><td>2017 Q2</td><td>472.4</td></tr> </table>	Year/Quarter	Value	2016 Q2	438.5	2017 Q1	261.9	2017 Q2	472.4	Over one year ago	Over last quarter
		Year/Quarter	Value								
2016 Q2	438.5										
2017 Q1	261.9										
2017 Q2	472.4										
		7.7%	80.3%								
Average Non-Holiday Weekday Vehicle Hours of Delay (VHD) at 35 mph	<p>Hours</p> <table border="1"> <tr><th>Year/Quarter</th><th>Value</th></tr> <tr><td>2016 Q2</td><td>4900</td></tr> <tr><td>2017 Q1</td><td>3773</td></tr> <tr><td>2017 Q2</td><td>5306</td></tr> </table>	Year/Quarter	Value	2016 Q2	4900	2017 Q1	3773	2017 Q2	5306	Over one year ago	Over last quarter
		Year/Quarter	Value								
2016 Q2	4900										
2017 Q1	3773										
2017 Q2	5306										
		8.3%	40.7%								
Total Vehicle Hours of Delay (VHD) at 60 mph	<p>Hours (Thousands)</p> <table border="1"> <tr><th>Year/Quarter</th><th>Value</th></tr> <tr><td>2016 Q2</td><td>790.9</td></tr> <tr><td>2017 Q1</td><td>545.6</td></tr> <tr><td>2017 Q2</td><td>974.1</td></tr> </table>	Year/Quarter	Value	2016 Q2	790.9	2017 Q1	545.6	2017 Q2	974.1	Over one year ago	Over last quarter
		Year/Quarter	Value								
2016 Q2	790.9										
2017 Q1	545.6										
2017 Q2	974.1										
		23.2%	78.5%								
Average Non-Holiday Weekday Vehicle Hours of Delay (VHD) at 60 mph	<p>Hours (Thousands)</p> <table border="1"> <tr><th>Year/Quarter</th><th>Value</th></tr> <tr><td>2016 Q2</td><td>9</td></tr> <tr><td>2017 Q1</td><td>8</td></tr> <tr><td>2017 Q2</td><td>11</td></tr> </table>	Year/Quarter	Value	2016 Q2	9	2017 Q1	8	2017 Q2	11	Over one year ago	Over last quarter
		Year/Quarter	Value								
2016 Q2	9										
2017 Q1	8										
2017 Q2	11										
		25.5%	42.9%								

Measure	Graph	Percentage Change	
Average Vehicle Hours of Delay by Day of Week at 60 mph		Largest Magnitude Decrease over one year ago	Largest Magnitude Decrease over last quarter
		-	-
		Largest Magnitude Increase over one year ago	Largest Magnitude Increase over last quarter
		Thursday 44.9% ↑	Sun/Hol 358.5% ↑
Average Vehicle Hours of Delay by Hour of Day at 35 mph, Weekdays		Largest Magnitude Weekday Decrease over one year ago	Largest Magnitude Weekday Decrease over last quarter
		3 PM -17.8% ↓	6 AM -37.8% ↓
		Largest Magnitude Weekday Increase over one year ago	Largest Magnitude Weekday Increase over last quarter
		8 AM 88.5% ↑	5 PM 53.2% ↑
Average Vehicle Hours of Delay by Hour of Day at 35 mph, Saturdays		Largest Magnitude Saturday Decrease over one year ago	Largest Magnitude Saturday Decrease over last quarter
		11 AM -32.7% ↓	5 AM -71.4% ↓
		Largest Magnitude Saturday Increase over one year ago	Largest Magnitude Saturday Increase over last quarter
		5 PM 51% ↑	12 PM 369.5% ↑
Average Vehicle Hours of Delay by Hour of Day at 35 mph, Sundays/Holidays		Largest Magnitude Sun./Holiday Decrease over one year ago	Largest Magnitude Sun./Holiday Decrease over last quarter
		11 AM -20.8% ↓	7 AM -32.3% ↓
		Largest Magnitude Sun./Holiday Increase over one year ago	Largest Magnitude Sun./Holiday Increase over last quarter
		5 PM 53.2% ↑	1 PM 374.1% ↑

Measure	Graph	Percentage Change	
Total Vehicle Hours of Delay (VHD) by County at 35 mph		Largest Magnitude Decrease over one year ago	Largest Magnitude Decrease over last quarter
		Monterey -17.5%	-
		Largest Magnitude Increase over one year ago	Largest Magnitude Increase over last quarter
Santa Cruz 20.9%	Santa Cruz 77.9%		
Average Non-Holiday Weekday Equivalent Lost Lane Mile Hours at 35 mph		Largest Magnitude Decrease over one year ago	Largest Magnitude Decrease over last quarter
		Off-Peak Night -48.1%	AM Peak -10.2%
		Largest Magnitude Increase over one year ago	Largest Magnitude Increase over last quarter
Off-Peak Day 20.9%	PM Peak 50.1%		
Average Number of Good and Bad Detectors		Change in Good over one year ago	Change in Good over last quarter
		29%	10%
		Change in Bad over one year ago	Change in Bad over last quarter
45%	-14%		

Congestion by Route

Route	County	Vehicle Hours of Delay at 35 m ph			Difference 2017 Q2-2016 Q2		Difference 2017 Q2-2017 Q1		Rank		
		2016 Q2	2017 Q1	2017 Q2	Absolute	Percentage	Absolute	Percentage	2016 Q2	2017 Q1	2017 Q2
		SRI	Santa Cruz	199,940	93,365	210,840	10,900	5.5%	117,475	125.8%	1
US101	Santa Barbara	83,756	56,443	91,929	8,173	9.8%	35,485	62.9%	3	3	2
SRI	Monterey	86,015	31,737	64,783	-21,233	-24.7%	33,046	104.1%	2	4	3
SR17	Santa Cruz	22,219	57,639	57,816	35,597	160.2%	177	0.3%	5	2	4
US101	San Luis Obispo	36,799	17,436	32,822	-3,977	-10.8%	15,386	88.2%	4	5	5
US101	Monterey	9,731	5,331	14,204	4,473	46.0%	8,873	166.4%	6	6	6
TOTALS		438,459	261,951	472,392	33,933	7.7%	210,441	80.3%			